

*Ensuring Coral Reefs for Life*

# **Ecotourism at Nusa Penida MPA, Bali: A pilot for community based approaches to support the sustainable marine resources management**

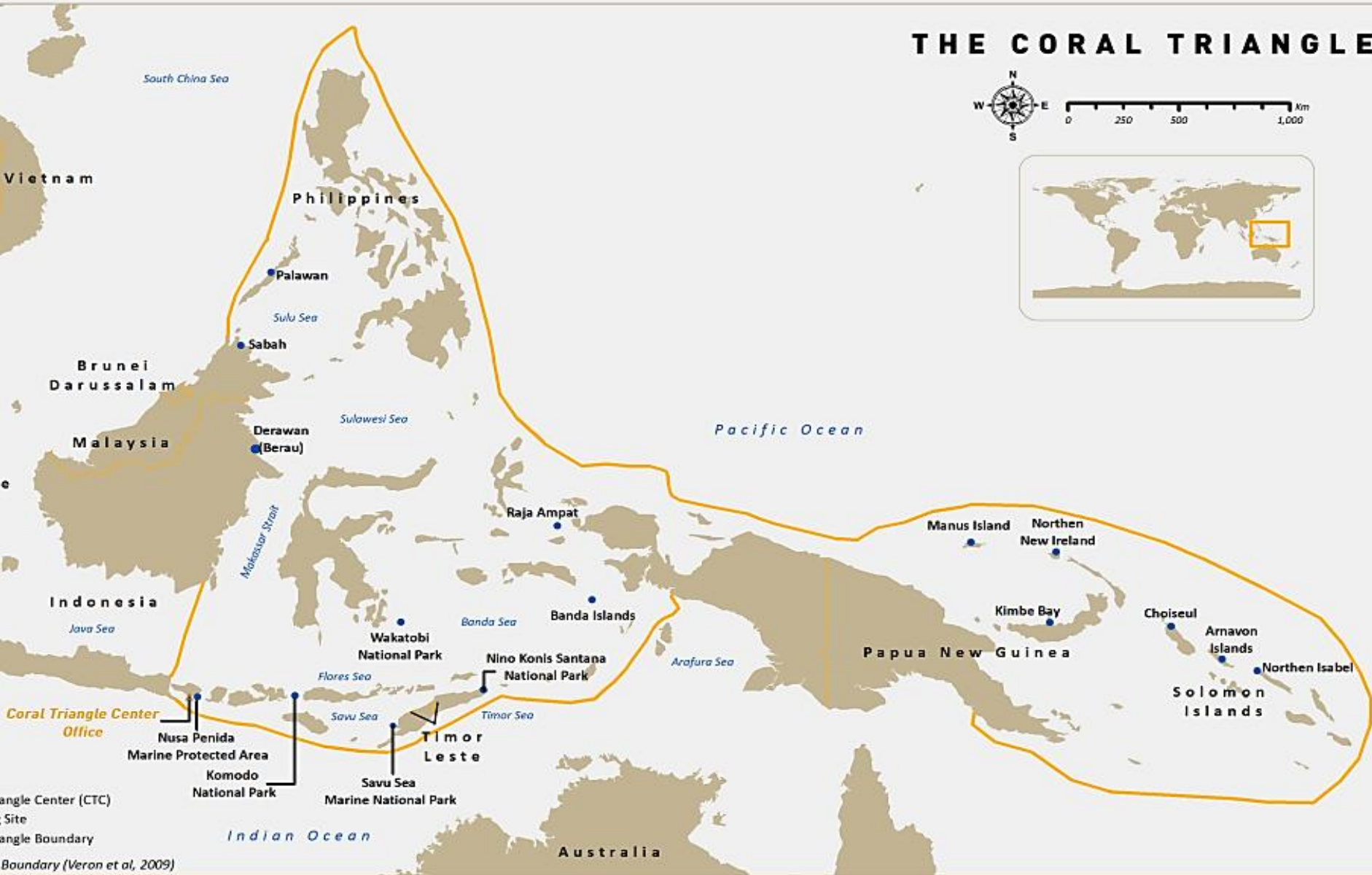


**Presented by Johannes Subijanto  
Coral Triangle Center**

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**International Conference on  
Climate Change and Coral Reef Conservation,  
Okinawa Japan, 30 June 2013**

# THE CORAL TRIANGLE

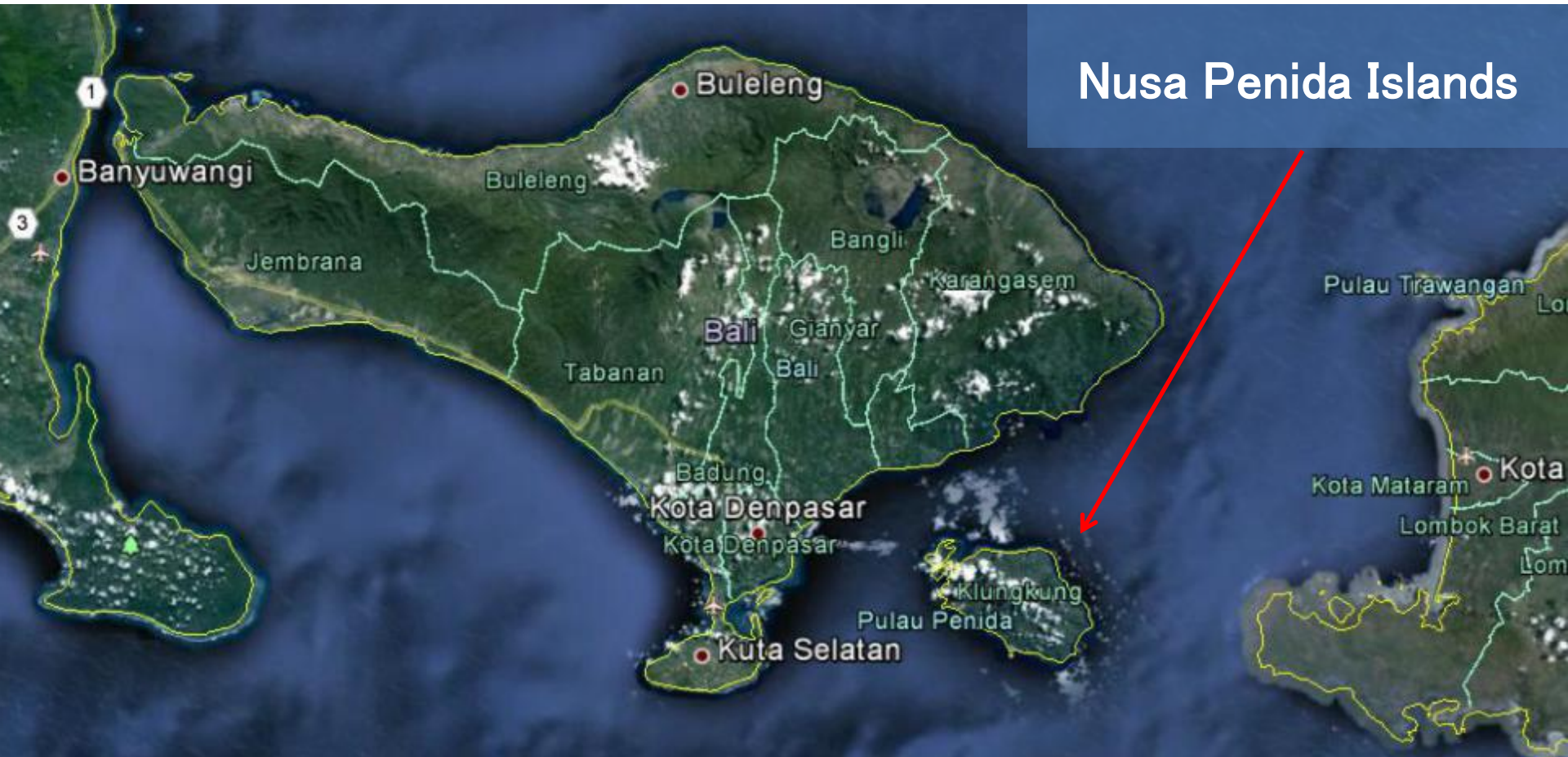


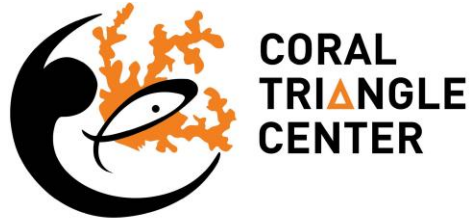
Coral Triangle Center (CTC)  
Site  
Coral Triangle Boundary  
National Park Boundary (Veron et al, 2009)



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## Nusa Penida Islands





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## General features





# Community, Biodiversity, Aesthetics, Culture, Social-economics

- Southeast of Bali Island
- Nusa Penida Islands: Penida, Lembongan and Ceningan Islands
- Klungkung District – 16 administrative villages, 40 traditional villages (mostly Balinese)- 45.000 inhabitants
- Fishers, tourism workers, seaweed farmers, farmers, cattle ranchers
- Coral reefs (300 species), mola-mola, manta rays, cetaceans, sharks, mangroves (13 species), seagrass (8 species)
- Devotion to tradition, rituals and culture, preserving sacred



Local Balinese Cultural Festival

# Marine Recreational Operations





Table corals





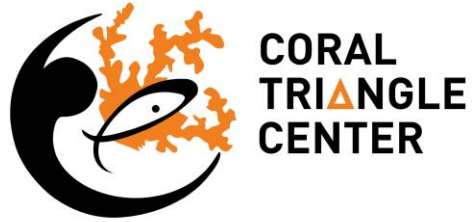
Copyright © Robert Delfs 2009

**Manta ray (*Manta birostris*)**



Copyright © Robert Delfs 2008 a

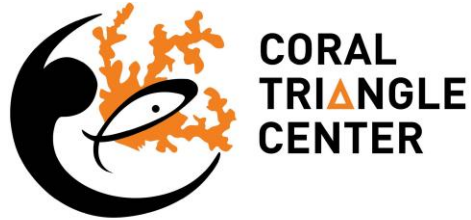
*Oceanic Sunfish (Mola mola)*



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# Historical Background





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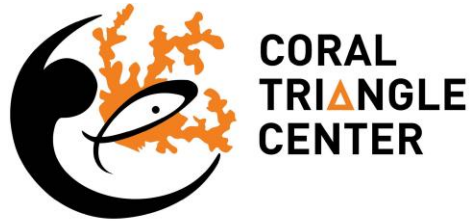
## Historical Background

- 2008 - Initiated cooperation TNC/CTC – Klungkung District Government
- Ecological surveys – baseline data
- 2009 - Working group on Nusa Penida MPA Establishment (local government agencies, traditional community groups, NGO)
- Focus Group Discussions – public consultations & awareness
- Marine Area reserved for MPA – 20.057 hectares - Klungkung District Decree no. 12 of 2010

## Conflicts among key stakeholders over coastal space uses

- Overlapping uses of small coastal areas – fishers, seaweed farmers and marine tourism sector
- Fishing activities vs diving sites
- Beaches and adjacent reefs: coastal resorts, marine tour operators vs. Seaweed farming
- Mangrove cutting: firewood for salt production, poles/pegs for seaweed



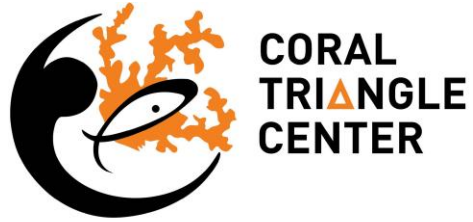


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## Multi-used small islands coastal area





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## Participatory measures and actions

- Series of public consultations with key stakeholders groups
- Consensuses:
- Establishment of MPA
  - Zoning system
  - Open-close areas
  - Stop mangrove cutting practices
  - Mangrove rehabilitation





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# Mangrove Rehabilitation







Nusa Penida Marine Protected Area and Zoning System



## Establishment of community ecotourism and processes

- Mapping of mangrove areas and species inventory
- Mangrove planting initiated by community groups
- Community group for organizing & operating mangrove tour
- Community operators – 34 dugout wooden boats
- Cooperating with big tour operators (Sail Sensation and Bali Hai)

### Mangrove Tour – Community Operated





## Financial aspect

- Financial benefit for locals
- Fee - Rp. 70.000/trip  
(approx. USD. 7,50) – max 4 pax per trip
- Per boat – average 2-3 trips/day
- Fee allocation per trip:
  - Rp. 5.000 for cooperative
  - Rp. 5.000 for village
  - Rp. 60.000 for operator
- Average visitation/month circa 400-500 tourists
- During low visitation season → seaweed farming



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# Ecoourism and Seaweed Farming

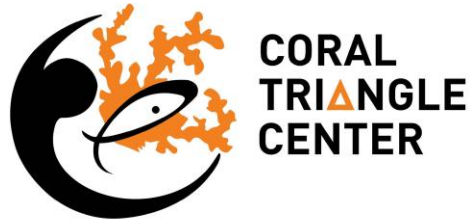


Dinning and discussion at the mangrove forest community restaurant



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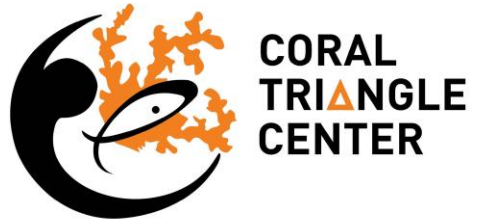




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## **Current practices and challenges ahead.**

- Restaurants and homestays developments surround mangrove forests areas
- Capacity building for community operators – English proficiency, hospitality, nature guiding
- Promotion and marketing – always limit to carrying capacity to preventing mass tourism
- Monthly regular meeting – organizing, income and revenue allocation, cooperative, cleaning practices – waste management
- Public utilities and facilities – sanitary, public toilets, roads and tracks
- Coordination with local agencies.



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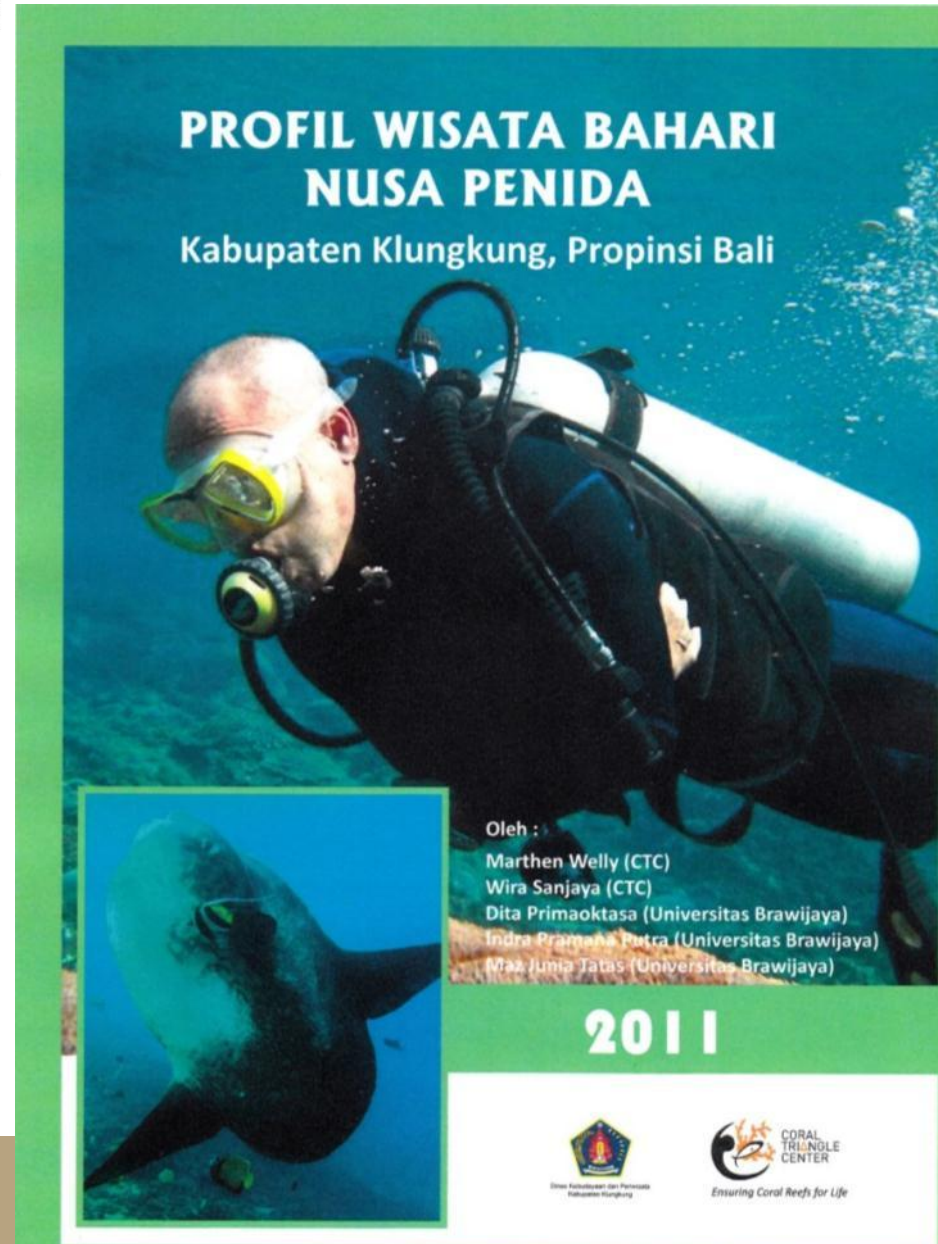






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Code of Conducts for  
Marine Tourism  
Sustainable Financing  
system  
Joint Patrol Team  
Capacity Building  
Learning Site  
Awareness and  
Education Pilot for Blue  
Economy scheme



# PROFIL WISATA BAHARI NUSA PENIDA

Kabupaten Klungkung, Propinsi Bali

Oleh :  
Marthen Welly (CTC)  
Wira Sanjaya (CTC)  
Dita Primaoktasa (Universitas Brawijaya)  
Indra Pramaana Putra (Universitas Brawijaya)  
Maa Juma Jatas (Universitas Brawijaya)

2011



Dinas Kabupaten dan Pariwisata  
Kabupaten Klungkung



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### Oceanic Sunfish and Manta Ray Interaction - Code of Conduct

These guidelines are designed to provide a satisfying and safe diving experience while increasing the lowest vulnerability risk on the sunfish and manta ray populations of Bali. The aim of developing the Code of Conduct for Sunfish and Manta Ray interactions is to ensure sunfish and manta ray are able to settle onto cleaning stations without being disturbed. A settled sunfish and manta ray can remain in station for longer periods, offering better quality interactions for us. We encourage wide dissemination of these guidelines by all local dive centers.

#### CODE OF CONDUCT FOR SUNFISH INTERACTION:

- Do not touch or make physical contact with the animal.
- Stay close to the reef and do not surround the Sunfish.
- At the dive and just entering the cleaning station, do not approach with the cleaning tool bag and the fish have been conditioned for tool's presence.
- Maintain a minimum distance of 3 to 5 body lengths from the cleaned Sunfish when arrival in a cleaning station.
- Maintain a minimum distance of 10 to 15 body lengths when arrival in a cleaned tool in cleaning and repositioning approach to the reef.
- **DO NOT TOUCH AND DO NOT FEED THE SUNFISH.**
- Do not swim behind the Sunfish or in line or side the animal.
- Do not swim under the fish as your bubbles will disturb cleaning station.
- Whenever possible, do not block the Sunfish's escape route off the reef.
- Do not breathe into a cleaning station.
- If a Sunfish approaches you, remain still and do not touch it. If you touch it, you will increase the number of visitors that prevents a quality interaction.
- Do not use hand straps only on the other side of the fish.
- Do not use artificial underwater movement propulsion vehicles or make unnecessary loud noises.
- Do not touch coral and take any marine life.
- Only dive with companies which have indicated and adhere to the Code of Conduct.
- Follow the instructions of your dive guide.

#### CODE OF CONDUCT FOR MANTA RAY INTERACTION:

- Always approach the Manta ray very slowly and stay to the right of the ray.
- Stay close to the reef and do not surround the Manta Ray.
- Maintain a minimum distance of 3 to 5 body lengths from the cleaned Manta when arrival in a cleaning station.
- Maintain a minimum distance of 10 to 15 body lengths when arrival in a cleaned tool in cleaning.
- **DO NOT TOUCH AND DO NOT FEED THE MANTA RAY.**
- Do not swim behind the Manta ray as this can startle the animal.
- Do not swim under the fish or your bubbles and don't swimming between whenever possible, do not block the Manta's pathway onto a cleaning station.
- If a Manta ray approaches you, remain still and do not touch it. If you touch it, you will increase the number of visitors that prevents a quality interaction.
- Do not use hand photography as this often disturbs the fish.
- Do not use artificial underwater movement propulsion vehicles or make unnecessary loud noises.
- Do not touch coral and take any marine life.
- Do not breathe into a cleaning station.
- Do not use a mask if it is not cleaning station.
- Only dive with companies which have indicated and adhere to the Code of Conduct.
- Follow the instructions of your dive guide.

#### CODE OF CONDUCT FOR DIVE OPERATOR:

- Do not carry more than 30 lbs of gear and take clean and distribute them to their dive group.
- Do not carry more than a bucket, stagger the entry into the water to avoid disturbing the site.
- Restrict diver group size to a maximum of 8 divers and 1 guide with exception to be confirmed by the dive guide.
- Have the capability to anchor at least 10 meter depth.
- Do not anchor in less than 30 meter unless clearly in a sand area with clean tools and dive sites.
- Do not anchor within marine tourism zone.
- Use mooring buoys when available.
- Communicate with other dive operators, including local based operators, to arrange dive schedules and densities being aware numbers of divers in one location.
- Do not purchase, trade-in or use supplied fish species - groupers, coral trout, Napoleon fish, parrot fish, giant trevally, shark, lobster and squid.
- Restrict dive guides not to manipulate marine life for the benefit of guests.
- Restrict boat captain to closely approach the dive site and stay at least 10 meters from the surface and the boat.
- Remove all plastic and non-biodegradable garbage to port. Organic materials and waste water will be disposed of and sent from reefs.
- It is the responsibility of the captain to lead and train divers in a proper representation, to ensure garbage is disposed of properly.

**Klungkung, 25 October 2012**  
Head of Department Culture and Tourism  
Klungkung District

*[Signature]*  
Mrs. I Wayan Supana  
NIP. 1971031190211191

Supported by:

# Learning Site Program



CTI MPA regional  
exchange  
March 2012

Learning Network  
activity in MPA Nusa  
Penida, Bali, Indonesia



## Learning Site Program



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# THANK YOU